

December 19, 2003

Cities and Counties
San Francisco Bay Area

Subject: Application for MTC's Regional Signal Timing Program Funds

Bay Area Cities and Counties:

The Metropolitan Transportation Commission (MTC) invites your agency to submit applications for the 2004 cycle of the Regional Signal Timing Program (RSTP). Successful applicants will receive assistance in developing and implementing new time-of-day signal coordination plans for weekday peak periods from consultants hired by MTC. The budget for the 2004 cycle is approximately \$1.2 million in federal funds, with which approximately 700 signals may be retimed. MTC will provide the local matching funds.

The Program Guidelines and Application Form are attached, and may also be downloaded from www.bayareatrafficsignals.org/events.htm. Program participants will be required to:

- Provide staff time to review and implement the timing plans developed by the consultant OR if peer review is granted, indemnify the peer reviewer, as described in Section 2.6 of the Program Guidelines;
- Review consultant deliverables in a timely fashion to facilitate project completion by mid-November 2004;
- Provide permission to the assigned consultant to enter data into relevant portions of the Traffic Signals Database; and,
- Indemnify MTC per the requirements listed in Section 2.6 of the Program Guidelines.

Applicants must submit seven (7) copies of the completed application, including all attachments, by 4:00 p.m. on Friday, February 13, 2004.

Applications submitted after that time will not be considered.

Applications received by the above deadline will be reviewed by an evaluation panel consisting of staff from MTC and other public agencies based on potential to enhance safety, mobility, and system efficiency; to improve air quality; and to increase person throughput and transit use. The ranking of applications will be posted at www.bayareatrafficsignals.org/events.htm by Friday, March 5, 2004.

Applications and all inquiries relating to this project solicitation should be submitted to the Program Manager at the address shown below. For telephone inquiries, call 510.817.3221 or e-mail catienza@mtc.ca.gov.

Christina Atienza
Metropolitan Transportation Commission
Joseph P. Bort MetroCenter
101 Eight Street
Oakland CA 94607-4700

We appreciate your interest in this solicitation and look forward to receiving your project applications.

Sincerely,

Ann Flemer
Deputy Director, Operations

AF: CMA

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1 Introduction

Traffic signal coordination is a cost-effective way of reducing vehicle emissions, improving mobility, and enhancing safety on arterials. The 2001 Regional Transportation Plan provides \$1.2 million per year in federal funds for the Regional Signal Timing Program (RSTP), beginning in 2003/04. There are approximately 7,000 traffic signals in the Bay Area, and about half of them currently operate as part of a coordinated system. The RSTP will retune the coordinated signals at least once every five years, or about 750 signals per year. MTC retains consultants to provide technical assistance to local jurisdictions for traffic signal coordination projects that they define.

The goals and objectives of the RSTP are as follows:

1. Improve reliability and predictability of travel along arterial roads.
 - Develop and implement signal coordination plans (a.m., midday, p.m.) that reduce travel time and delay.
 - Develop and implement multi-jurisdictional signal coordination plans.
 - Develop and implement signal coordination plans based on the throughput of people rather than vehicles. Develop and implement flush plans for arterials that are used as diversion routes in the event of freeway incidents, if funded by local agencies.
 - Develop and implement special event timing plans for arterials near special event traffic generators, if funded by local agencies.
 - Develop and implement optimized actuated settings for fully actuated signals to minimize queuing during non-peak periods.
2. Improve air quality through decreased motor vehicle emissions and fuel consumption.
 - Develop and implement signal coordination plans that reduce starts and stops and promote uniform travel speeds.
 - Develop and implement transit signal priority plans that make transit a more attractive travel option.
3. Improve the safety of motorists, pedestrians, and bicyclists.
 - Collect pedestrian and bicyclist volume data at the same time as vehicle count data at intersections to be coordinated.
 - Incorporate collected information into Traffic Signals Database.
 - Develop and implement signal coordination plans that promote uniform travel speeds, thereby reducing rear-end collisions.
 - Review existing pedestrian crossing times and bicycle detection at intersections to be coordinated, and recommend adjustments as necessary.
4. Provide streamlined program administration and project management.
 - Provide high-quality technical assistance in a cost-effective manner
 - Require local agency review and approval of timing plans prior to implementation or provide a peer review option
 - Use data on number of projects completed within schedule and budget to guide assignment of projects to consultants

2 Applicants

2.1 Applicant Eligibility

The applicant for RSTP funds must be a Bay Area public agency that will assume the responsibility of sponsoring the project and is either responsible for operating traffic signals or authorized to act on behalf of the agencies that operate traffic signals within the project limits. The applicant may apply on behalf of other agencies that operate traffic signals within the project limits by providing letters of support from those agencies or having them sign the application. All agencies that are involved in a project must also: 1) provide staff time to review and implement the timing plans developed as part of the project (except as provided in the following paragraph); 2) commit to completing the project within one year of the award date; 3) provide permission to the project consultant to enter collected data into the Traffic Signals Database; and 4) be willing to indemnify MTC.

Agencies that do not have staff to review and implement timing plans may apply or participate in a project, but must agree to implement timings based on a peer review and be willing to indemnify the reviewer, as described in Section 2.6 of these Program Guidelines. Eligibility for peer review will be determined at the sole discretion of MTC.

2.2 Project Eligibility

To be eligible for RSTP funds, a project must involve the coordination of traffic signals that, through interconnection or reliable time sources, are currently capable of coordinated operation or will be within sixty (60) days of the project application deadline. Projects that involve traffic signals that have been coordinated within the past three years are ineligible, unless a significant change in peak hour traffic volume can be demonstrated. Projects that involve development of traffic signal coordination plans for future traffic volumes are also ineligible.

2.3 Project Categories

2.3.1 Eligible Work Types

- 1) Signal coordination for weekday morning, midday, and/or afternoon peak periods;
- 2) Transit priority for weekday morning, midday, and/or afternoon peak periods;
- 3) Signal coordination for additional scenarios, such as weekday off-peak, weekends, special events, or flush plans, if part of (1) and paid for by the local agency under a separate contract between the local agency and the consultant.

2.3.2 Eligible Project Types

- 1) One Arterial for One Jurisdiction (Example: Castro Valley Bl. for Alameda County)
- 2) One Arterial for Many Jurisdictions (Example: Hesperian to Union City Bl. for San Leandro, Hayward, and Union City)
- 3) Multiple Arterials for One Jurisdiction (Example: Mission and Market for San Francisco)

REGIONAL SIGNAL TIMING PROGRAM GUIDELINES

- 4) Multiple Arterials for Adjacent Jurisdictions (Example: Treat Bl, Ygnacio Valley Rd, and Kirker Pass Rd for Concord, Walnut Creek, and Pleasant Hill)
- 5) Area-Wide for One Jurisdiction (Example: Downtown Oakland)
- 6) City-Wide for One Jurisdiction (Example: all major arterials in Napa)
- 7) City-Wide for Adjacent Jurisdictions (Example: all major arterials in Richmond, San Pablo)

2.4 Project Evaluation Criteria

Applications are evaluated according to the following criteria:

Category	Definition	Evaluation Criteria	Point Assignment
Safety	Highest 2001 Office of Traffic Safety statewide ranking of total fatal & injury collisions by population among participating agencies	300+ 150 to 299 1 to 149	0 10 20
Mobility	Extent of project that will benefit major roadways, as defined by Caltrans' Functional Classification of Streets and Highways	Mostly Urban Collector to Mostly Other Principal Arterial or Higher	0 - 20
System Efficiency	Extent of project participants' commitment to efficiency in terms of definition of project limits, optimization of actuated settings and left-turn phasing, and maintenance of coordinated timings	Little to Significant	0 – 30
Multi-Jurisdiction Involvement	Number of jurisdictions involved in the project (city or town, county, Caltrans, and transit property for transit priority project)	1 agency 2 3 4 or more	0 5 10 15
Air Quality	Location of project within the air shed of a monitoring station that has exceeded 1-hour national or state ozone standard for at least once in the last three years	No Exceedance Exceeded state standard only Exceeded national & state standard	0 10 20
Person-Throughput	Extent of project that will benefit the 2001 Lifeline Transportation Network	None to All	0 – 20
Transit Priority	Percentage of traffic signals that will provide or update transit priority	None to All	0 - 20
<i>Maximum Possible Points</i>			<i>145</i>

2.5 Application

To request funds under the RSTP, an applicant must fill out and submit to MTC the application form provided in Appendix A. Applicants may submit more than one application. Large

projects involving 30 or more traffic signals may be broken down into phases for separate funding consideration.

Clarifications regarding line items in the application that require the applicant to refer to another reference are as follows:

- Item 2d, Potential to Enhance Safety – Refer to Appendix C for instructions on how to interpret the Office of Traffic Safety rankings.
- Item 2e, Potential to Improve Mobility and Potential to Increase Person Throughput – The Traffic Signals Database is accessible from www.bayareatrafficsignals.org under Traffic Signals Database/Log On. A valid user ID and password are required to access the list of traffic signals that are included in the database. To request a user ID and password, send an e-mail request to catienza@mtc.ca.gov. Local agencies may view data only for the signals that they own.
- Item 2g, Potential to Improve Air Quality – Refer to Appendix D for instructions on how to interpret the Bay Area Pollution Summaries.

2.6 Waiver of Claims and Indemnification

Receipt of an RSTP grant is contingent on the local agency's willingness to enter into an agreement with MTC to: (1) waive any and all claims against MTC for any loss liability or damages resulting from this program (directly or indirectly); and (2) indemnify, hold harmless, and defend MTC against any and all third party claims that may result from the agency's participation in the program. An agency that requires peer review assistance will also be required to sign such an agreement in favor of the peer reviewer. A sample indemnification agreement is included in Appendix E.

See Section 3.4 of these Program Guidelines for information regarding consultant liability.

Before submitting an application, all participating agencies are encouraged to review Appendix E with their attorneys to obtain preliminary approval. The waiver and indemnification agreement is not required to be included with the application but will be required within thirty (30) days of notification that the agency has been selected for participation in the program.

2.7 Local Agency Approvals

MTC does not require applicants to furnish proof of permission to apply from local elected officials, such as City Councils. Securing any and all required approvals from local governing bodies are the responsibility of each applicant.

3 Consultants

3.1 Qualifications

Minimum consultant qualifications for the RSTP are:

1. Lead staff with applied knowledge of, and expertise in:
 - a. the principles of traffic signal timing and signal coordination;
 - b. hardware and software used for traffic signal systems;
 - c. analysis of recent collision history for susceptibility to correction through traffic signal timing and coordination; and,
 - d. accommodating the needs of all users of arterials, including motorists, pedestrians, bicyclists, transit patrons, and transit vehicles in the context of traffic signal timing and coordination.
2. Lead and technical staff with experience in:
 - a. the use of micro-simulation software for optimization of arterial signal coordination;
 - b. implementation of timing plans using legacy and modern traffic signal system software and hardware; and,
 - c. operation and programming of different types of controllers.
3. Lead staff with eight (8) or more years of experience in the areas of expertise noted above and California Civil or Traffic Engineer registration; and technical staff with three (3) or more years of experience in the areas of areas of expertise noted above.

The following consultant qualifications are desirable and are viewed as exceeding the minimum requirements:

4. Lead staff with applied knowledge of, and expertise in, the principles of transit signal priority; and lead and technical staff with experience in the use of micro-simulation software for transit signal priority and implementing and fine-tuning transit signal priority plans.
5. Lead and technical staff located in the Bay Area and their experience in working with Bay Area agencies and traffic signal systems.
6. Lead staff with experience in working on successful multi-public agency signal coordination projects.
7. Depth of staff resources to work on multiple projects at the same time.

3.2 Scope of Work

The consultant's scope of work is standardized as follows:

1. *Project Start-Up* - kick-off meeting and preparation of Draft and Final Detailed Workscope, Schedule, and Budget (Deliverable #1).
2. *Analysis of Existing Conditions* – collection of traffic counts; ‘before’ travel time and delay study; review of actuated settings, including pedestrian timing; review of accident history; review of transit volume and on-time performance, if applicable; model development and

calibration; and preparation of Draft and Final Analysis of Existing Conditions Technical Memorandum (Deliverable #2).

3. *Development of Draft Recommendations* – development of optimal timing plans, including analyses of signal grouping, phasing, cycle lengths, splits, and offsets; comparison of time-space diagrams for existing and recommended timing plans; description of expected improvements; and preparation of Draft Recommendations Technical Memorandum (Deliverable #3).
4. *Implementation and Evaluation* – preparation of timing sheets; implementation of approved signal timing plans; fine-tuning; calculation of performance measures, including ‘after’ travel time and delay study, fuel consumption and emissions; preparation of revised timing sheets (Deliverable #4); and preparation of Final Timings and Evaluation Technical Memorandum (Deliverable #5).

For projects involving transit signal priority, it is not possible to exactly specify the consultant services that may be required, given the variety of system capabilities and strategies for deploying transit signal priority. Such services may include, but are not limited to, additional meetings, additional fine-tuning, transit travel time and delay studies, etc. The scope of these services are negotiated on a case-by-case basis during the project kick-off meeting.

3.3 Budget and Basis of Payment

3.3.1 Budget for Signal Coordination Without Transit Signal Priority

MTC pays consultants a fixed fee based on the following fee schedule.

Service	Fee*
Time-of-Day Signal Coordination with Timings Implemented from Traffic Management Center	\$550 per intersection per scenario
Time-of-Day Signal Coordination with Timings Implemented in the Field	\$600 per intersection per scenario

* Scenario = two-hour morning, midday, or afternoon weekday peak period

3.3.2 Budget for Transit Signal Priority

The budget for projects that involve transit signal priority is based on the nature of the technical assistance requested by the project sponsor. The budget for this type of work is finalized at the project kick-off meeting.

3.3.3 Basis of Payment

MTC pays consultants by deliverable based on the following payment schedule. Payment is authorized after both the project sponsor and MTC have approved the deliverable.

Deliverable	Payment
1. Final Detailed Workslope, Schedule, and Budget	5%
2. Final Analysis of Existing Conditions Technical Memorandum	40%
3. Final Recommendations Technical Memorandum	30%
4. Revised Timing Sheets	10%
5. Final Timings and Evaluation Technical Memorandum	15%

3.4 Consultant Liability and Insurance

3.4.1 Indemnification of MTC and Client Jurisdictions

Consultants are required to indemnify MTC and all client jurisdictions. In addition to the indemnification, consultants are required to include MTC and all client jurisdictions as additional insureds under their liability insurance. Indemnification provisions from MTC's contract with the consultants are included in Appendix F.

3.4.2 Insurance Requirements

Consultants are required to maintain insurance coverage during the term of the contract with MTC at the levels described in Appendix G, including professional liability insurance in the amount of \$1,000,000. Each policy or policies shall include MTC and all client jurisdictions as additional insureds and an endorsement providing that such insurance is primary insurance and not insurance of MTC or any client jurisdiction will be called on to contribute to a loss.

4 Process

4.1 Administrative Responsibility

MTC will administer and manage the RSTP. This includes serving as the recipient of the \$1.2 million per year in federal funds; providing local matching funds; contracting with consultants; approving consultant deliverables; paying consultant invoices; and obligating federal funds through Caltrans.

4.2 Call for Projects

The Call for Projects occurs once per year in the last quarter of the year. Applicants are given approximately 1½ months for preparation of the application. All applications received by the deadline shown in the application form are evaluated by a panel consisting of staff from MTC and other public agencies. The panel will rank the applications based on the project evaluation criteria described in Section 2.

4.3 Grant Award

The ranking of project applications is posted at www.bayareatrafficsignals.org under Events and Deadlines approximately two months after the solicitation for projects is released. The list includes the individual estimated budget for the project and the cumulative estimated budget of all projects by rank. Final project budgets are determined at the kick-off meeting between the project stakeholders, assigned consultant, and MTC. Grants are awarded in the form of consultant assistance. Ten percent of the available \$1.2 million will be reserved for contingencies. Unsuccessful project sponsors may reapply in subsequent cycles.

4.4 Consultant Selection

MTC retains four to six consultants every two years to provide technical assistance under the RSTP. A request for qualifications (RFQ) is released every two annual cycles, during the last quarter of the year. A panel consisting of staff from MTC and other public agencies evaluates all statements of qualifications (SOQs) that are received by the deadline stated in the RFQ.

4.5 Consultant Assignment

Sponsors are asked to indicate their consultant preferences. For the initial year of the consultant contract, project assignments are based, to the extent possible, on project sponsor preferences, given MTC's intention of distributing the work and funding fairly equally among the selected consultants. Project assignment in the subsequent year of the consultant contract will reflect sponsor preference, the consultant's performance in the prior year, and MTC's desire to distribute the work somewhat equally.

4.6 Project Delivery

The assigned consultant contacts the project sponsor, other involved agencies, and MTC to schedule the kick-off meeting for the project. The kick-off meeting provides an opportunity to establish communication channels and protocols; discuss the scope of work, schedule, and budget; gather available information; and discuss the sponsor's goals with the consultant.

All necessary technical correspondence occurs between the project sponsor, other involved agencies, and the consultant. MTC is copied on all technical correspondence. The role of MTC is to ensure that high quality, timely, and within-budget technical assistance is provided for the agreed upon scope of work.. Any changes to the scope of work agreed upon at the kick-off meeting are subject to MTC approval.

All agencies that own or operate traffic signals within the project limits, as well as MTC, are required to review consultant deliverables in a timely fashion. MTC's review of deliverables focuses on adherence to scope of work. Consultants are paid by deliverable by MTC after both the project sponsor and MTC have approved the deliverable.

Deliverable review time is set during the kick-off meeting. Deliverables that are not reviewed within the agreed upon review time will be automatically approved by MTC. Any changes to the agreed upon schedule are subject to MTC approval.

4.7 Consultant Evaluation

At the conclusion of each project, project sponsors are required to fill out and return to MTC a confidential consultant evaluation form. MTC uses the results of the evaluation to determine the number of projects that are assigned to the consultant in the following year of the consultant contract and as a reference for future evaluations.

4.8 Timeline

Steps	2004 and 2005 Cycles
Release Consultant RFQ	Early December
Release Call for Projects	mid-December
Consultants Selected	Early February
Project Applications Due	mid-February
Projects Assigned to Consultants	Early March
Project Start-Up	
Kick-Off Meetings	March
Detailed Workscope, Schedule, and Budget	March to April
Analysis of Existing Conditions	
Data Collection	March to May
Analysis	May to July
Draft Recommendations	July to August
Implementation and Evaluation	mid-September to mid-November

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Appendix A Application Form

The application form may also be downloaded from www.bayareatrafficsignals.org under Events & Deadlines.

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General Instructions

Please read all instructions carefully. All sections must be completed. Failure to provide required information or failure to prepare the application in accordance with the instructions may result in your application being disqualified.

The entire application form must be submitted. For additional information, please refer to the Program Guidelines. **All applications must be received by 4:00 p.m. on Friday, February 13, 2004.**

Applications submitted after that time will not be considered. Submit seven (7) copies of the completed application, including all attachments, to:

Christina Atienza
Metropolitan Transportation Commission
Joseph P. Bort MetroCenter
101 Eighth Street
Oakland CA 94607-4700

1) GENERAL INFORMATION

a) Project Title

Provide a descriptive and distinctive name for the project

b) Project Sponsor and Contact Information:

Name, Title

Organization

Mailing Address Line 1

Mailing Address Line 2

Telephone Number, Fax Number, E-Mail

c) Other Participating Agencies and Their Roles:

List cities, towns, county, transit agency, school district, Caltrans, etc. and the role of each agency with respect to the project. List agencies that own and/or operate traffic signals within the project limits first.

d) Responsibilities and Requirements:

All participating agencies that own, operate, or maintain traffic signals within the project limits will be required to:

- Indemnify MTC per the requirements listed in Section 2.6 of the Program Guidelines;
- Provide staff time to review and implement the timing plans developed by the assigned consultant OR if peer review is granted, indemnify the peer reviewer;
- Review deliverables in a timely fashion to facilitate project completion by mid-November 2004;
- Provide permission to the assigned consultant to enter data into relevant portions of the Traffic Signals Database.

Do all participating agencies agree to the above requirements?

[] Yes [] No

Exceptions: *If no, provide explanation. Also, list agencies requesting peer review and basis for request.*

e) Project Priority: 1, 2, 3, ... Fill in if submitting more than one application.

f) Work Type(s): *Check all that apply.*

- ☐ Weekday Peak Period Time-of-Day Traffic Signal Coordination:
☐ Weekday AM ☐ Weekday Middyay ☐ Weekday PM
- ☐ Weekday Transit Signal Priority
- ☐ Traffic Signal Coordination for Additional Scenarios: (must be paid for by local agency)
☐ Weekday Off-Peak ☐ Weekend ☐ Special Event
☐ Incident ☐ Traffic Responsive ☐ Other: *specify*

g) Project Type: *Check one.*

- | | |
|---|--|
| <input type="checkbox"/> One Arterial in One Jurisdiction | <input type="checkbox"/> Area-Wide in One Jurisdiction |
| <input type="checkbox"/> One Arterial in Many Jurisdictions | <input type="checkbox"/> City-Wide in One Jurisdiction |
| <input type="checkbox"/> Multiple Arterials in One Jurisdiction | <input type="checkbox"/> City-Wide in Adjacent Jurisdictions |
| <input type="checkbox"/> Multiple Arterials in Many Jurisdictions | |

2) PROJECT INFORMATION

a) Project Description and Demonstration of Need:

Description: Provide a map of the project, including project limits, jurisdiction boundaries, number and location of signals to be retimed, signal systems, subsystem boundaries, controller types, and coordination capabilities (interconnect, WWV, etc.).

Need: Provide a detailed narrative description of supplemental information to demonstrate the need for the project; for example, year of last retiming effort, levels of congestion, safety problems of the type susceptible to correction through signal timing, traffic volume data, transit volume data, transit ridership data, etc. Provide supporting maps and/or documents as appropriate. Limit attachments for supplemental information to ten (10) pages.

b) Project Phasing and Prioritization:

For projects involving 30 or more signals, describe phases into which the project may be broken down and prioritize each phase. Provide maps as necessary to illustrate distinct phases.

c) Available Data: *Check all that apply.*

- | | |
|---|---|
| <input type="checkbox"/> Timing Sheets | <input type="checkbox"/> Signal Timing Preferences |
| <input type="checkbox"/> Coordination Plans | <input type="checkbox"/> Transit Priority Preferences |
| <input type="checkbox"/> Traffic Signal As-Builts | <input type="checkbox"/> Computer Model |
| <input type="checkbox"/> Aerial Photos | <input type="checkbox"/> Three Years Collision Data |

Additional Information: Describe exceptions and provide clarifications as necessary.

d) Are all the traffic signals that will be retimed as part of the project currently capable of coordination and if appropriate, transit signal priority?

☐ Yes ☐ No

Additional Information: If no, provide explanation.

e) Have any of the traffic signals that will be retimed as part of the project been retimed within the past three (3) years?

☐ Yes ☐ No

Additional Information: If yes, provide explanation.

f) Potential to Enhance Safety:

Referring to www.ots.ca.gov/cgi-bin/rankings.pl and Appendix C of the Program Guidelines, list for all participating cities or counties the 2001 statewide ranking by population for total fatal and injury collisions.

Agency	Ranking

g) Potential to Improve Mobility and Potential to Increase Person Throughput:

MTC will conduct an analysis using a geographic information system to determine 1) the extent of the project that will benefit major roadways, as defined by Caltrans' Functional Classification of Streets and Highways; and 2) the extent of the project that will benefit the 2001 Lifeline Transportation Network. *Each participating agency should review the list of signals within their jurisdiction that are listed in the Traffic Signals Database (www.bayareatrafficsignals.org/tsd.asp) to ensure that all of the signals within the project limits have been geocoded.*

Are all signals within the project limits included in the Traffic Signals Database?

☐ Yes ☐ No

Additional Information: *If no, list all missing signals. Signals at intersections that would not normally appear on a Thomas Bros. Map (at driveways, for instance) should be illustrated on a map and included as an attachment.*

h) Potential to Enhance System Efficiency:**Rationale for Project Definition:**

Describe briefly the traffic engineering rationale for the definition of the project limits and project phases, if appropriate.

Optimization of Actuated Settings:

Consultants will be available to review actuated settings for each study intersection to minimize delay during non-coordinated periods and enhance pedestrian and bicyclist safety. The analysis may include review of minimum and maximum green settings; yellow and red clearances; pedestrian timing; gap, extension, and reduction settings; phase sequence; feasibility of conditional service for protected left-turn movements; and skipping phases.

Are all participating agencies willing to have the assigned consultant provide some or all of the above services?

☐ Yes ☐ No

Additional Information: *If no, provide an explanation.*

Maintenance Program:

Describe briefly how each participating agency currently maintains the traffic signal timing and coordination plans for the signals within the project limits.

APPLICATION FORM FOR REGIONAL SIGNAL TIMING PROGRAM FUNDS FOR 2004 CYCLE

i) Potential to Improve Air Quality:

Select from the following the monitoring station closest to the project and enter into the table below. (Hint: Double-click on the table to edit.)

- North Counties: Napa, San Rafael, Santa Rosa, Vallejo
- Coast and Central Bay: Oakland, San Francisco, San Pablo
- Eastern District: Bethel Island, Concord, Fairfield, Livermore, Pittsburg
- South Central Bay: Fremont, Hayward, Redwood City, San Leandro
- Santa Clara Valley: Los Gatos; San Jose, 4th Street; San Jose East; San Martin; Sunnyvale

Closest Monitoring Station:		Enter Here	
Year	Days Exceeded 1-Hr Nat'l Std	Days Exceeded 1-Hr State Std	Days Exceeded 8-Hr Nat'l Std
2002	-	-	-
2001	-	-	-
2000	-	-	-
Total	0	0	0

j) Potential to Increase Transit Use:

Description: If the project involves transit signal priority, briefly describe the affected transit routes and provide a map showing their location.

For how many traffic signals will transit priority be provided or updated? ## % of Total

3) PROJECT COST ESTIMATE

Fill in the following table for the time-of-day signal coordination element of the project (no transit priority). Do not change the unit cost values. (Hint: Double-click on the table to edit.)

Project Phase	No. of Signals per Implementation Scenario		No. of Timing Plans (1, 2, or 3)	Subtotal Cost
	From TMC or Dial-Up	At Controller		
1				\$0
2				\$0
3				\$0
4				\$0
5				\$0
6				\$0
7				\$0
8				\$0
Total Cost Estimate				\$0

4) DEMONSTRATION OF SUPPORT AND APPLICATION SIGNATURES

Attach letters of support from all participating agencies or have an official from the other participating agencies sign this application along with the project sponsor. By providing letters of support and/or signing the application, the signator affirms that the statements contained in the application package are true and complete to the best of their knowledge.

_____ Signature	_____ Signature	_____ Signature
_____ Name/Agency	_____ Name/Agency	_____ Name/Agency

_____ Signature	_____ Signature	_____ Signature
_____ Name/Agency	_____ Name/Agency	_____ Name/Agency

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Appendix B Sample Application Form

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General Instructions

Please read all instructions carefully. All sections must be completed. Failure to provide required information or failure to prepare the application in accordance with the instructions may result in your application being disqualified.

The entire application form must be submitted. For additional information, please refer to the Program Guidelines. **All applications must be received by 4:00 p.m. on Friday, February 13, 2004.**

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Christina Atienza
Metropolitan Transportation Commission
Joseph P. Bort MetroCenter
101 Eighth Street
Oakland CA 94607-4700

5) GENERAL INFORMATION

a) Project Title

Pittsburg and Antioch Major Arterials

b) Project Sponsor and Contact Information:

Joel McDaniel, Civil Engineer II
City of Pittsburg
65 Civic Avenue
Pittsburg CA 94565
Tel (925) 252-4924, Fax (925) 252-6928, jmcdaniel@ci.pittsburg.ca.us

c) Other Participating Agencies:

(1) City of Antioch – key project participant responsible for operation of some traffic signals within project limits; (2) Caltrans – key project participant responsible for operation of some traffic signals within project limits

d) Responsibilities and Requirements:

All participating agencies that own, operate, or maintain traffic signals within the project limits will be required to:

- Indemnify MTC per the requirements listed in Section 2.6 of the Program Guidelines;
- Provide staff time to review and implement the timing plans developed by the assigned consultant OR if peer review is granted, indemnify the peer reviewer;
- Review deliverables in a timely fashion to facilitate project completion by mid-November 2004;
- Provide permission to the assigned consultant to enter data into relevant portions of the Traffic Signals Database.

Do all participating agencies agree to the above requirements?

[x] Yes [] No

Exceptions: Caltrans has an existing agreement with MTC.

e) Project Priority: 1 Fill in if submitting more than one application.

f) Work Type(s): *Check all that apply.*

- ☒ Weekday Peak Period Time-of-Day Traffic Signal Coordination:
 ☒ Weekday AM ☒ Weekday Midday ☒ Weekday PM
☐ Weekday Transit Signal Priority
☐ Traffic Signal Coordination for Additional Scenarios: (must be paid for by local agency)
 ☐ Weekday Off-Peak ☐ Weekend ☐ Special Event
 ☐ Incident ☐ Traffic Responsive ☐ Other: *specify*

g) Project Type: *Check one.*

- | | |
|--|--|
| <input type="checkbox"/> One Arterial in One Jurisdiction | <input type="checkbox"/> Area-Wide in One Jurisdiction |
| <input type="checkbox"/> One Arterial in Many Jurisdictions | <input type="checkbox"/> City-Wide in One Jurisdiction |
| <input type="checkbox"/> Multiple Arterials in One Jurisdiction | <input type="checkbox"/> City-Wide in Adjacent Jurisdictions |
| <input checked="" type="checkbox"/> Multiple Arterials in Many Jurisdictions | |

6) PROJECT INFORMATION

a) Project Description and Demonstration of Need:

Description: The project is to retime 89 traffic signals along major arterials in Pittsburg and Antioch, including: Railroad, Lone Tree, Hillcrest/Deer Valley, Leland/Loveridge, Somersville, Buchanan, and Bailey. The project may be divided into seven phases for individual funding consideration. See attached map.

Need: Bailey, Railroad, Loveridge, Somersville, Lone Tree, and Hillcrest provide direct access to State Route 4. Leland and Buchanan are parallel to State Route 4 and are frequently used as alternate routes of travel for east-west regional through traffic. The most recent retiming effort was conducted for Railroad Av in 1999. The arterials are four to six lanes wide, each carrying an average daily traffic volume of over 20,000. New development and changes in travel patterns of local and regional through traffic in response to severe congestion along State Route 4 have rendered the old timing plans obsolete.

b) Project Phasing and Prioritization:

All participating agencies are able to commit the staff time necessary to conduct the entire project. However, should funding for the entire project be a constraint, the project may be divided into seven phases for individual consideration. Phasing and prioritization are shown in the attached map.

c) Available Data: *Check all that apply.*

- | | |
|--|--|
| <input checked="" type="checkbox"/> Timing Sheets | <input checked="" type="checkbox"/> Signal Timing Preferences |
| <input checked="" type="checkbox"/> Coordination Plans | <input type="checkbox"/> Transit Priority Preferences |
| <input checked="" type="checkbox"/> Traffic Signal As-Builts | <input type="checkbox"/> Computer Model |
| <input checked="" type="checkbox"/> Aerial Photos | <input checked="" type="checkbox"/> Three Years Collision Data |

Additional Information: Aerial photos available in 1:200. Only two years worth of SWITRS data is available for Pittsburg arterials.

d) Are all the traffic signals that will be retimed as part of the project currently capable of coordination and if appropriate, transit signal priority?

☒ Yes ☐ No

Additional Information: N/A

- e) **Have any of the traffic signals that will be retimed as part of the project been retimed within the past three (3) years?**

☐ Yes ☒ No

Additional Information: N/A

- f) **Potential to Enhance Safety:**

Referring to www.ots.ca.gov/cgi-bin/rankings.pl, list for all participating cities or counties the 2001 statewide ranking by population for total fatal and injury collisions.

Agency	Ranking
Antioch	352
Pittsburg	236

- g) **Potential to Improve Mobility and Potential to Increase Person Throughput:**

MTC will conduct an analysis using a geographic information system to determine 1) the extent of the project that will benefit major roadways, as defined by Caltrans' Functional Classification of Streets and Highways; and 2) the extent of the project that will benefit the 2001 Lifeline Transportation Network. *Each participating agency should review the list of signals within their jurisdiction that are listed in the Traffic Signals Database (www.bayareatrafficsignals.org/tsd.asp) to ensure that all of the signals within the project limits have been geocoded.*

Are all signals within the project limits included in the Traffic Signals Database?

☐ Yes ☒ No

Additional Information: Need to add signal at Railroad/Castlewood Dr

- h) **Potential to Enhance System Efficiency:**

Rationale for Project Definition:

All are key arterials within Pittsburg and Antioch: five lead directly to State Route 4 and two are heavily used as bypass routes during severe congestion along State Route 4. All signals within each subsystem/phase are within 1/4-mile of another signal.

Optimization of Actuated Settings:

Consultants will be available to review actuated settings for each study intersection to minimize delay during non-coordinated periods and enhance pedestrian and bicyclist safety. The analysis may include review of minimum and maximum green settings; yellow and red clearances; pedestrian timing; gap, extension, and reduction settings; phase sequence; feasibility of conditional service for protected left-turn movements; and skipping phases.

Are all participating agencies willing to have the assigned consultant provide some or all of the above services?

☒ Yes ☐ No

Additional Information: Must use Caltrans standards for Caltrans signals and Pittsburg standard of 1.5-second all-red phase. All other settings may be reviewed.

APPLICATION FORM FOR REGIONAL SIGNAL TIMING PROGRAM FUNDS FOR 2004 CYCLE

Maintenance:

Actuated settings are changed in response to resident complaints. Coordination plans have not been updated since 1999.

i) Potential to Improve Air Quality:

Select from the following the monitoring station closest to the project and enter into the table below. (Hint: Double-click on the table to edit.)

- North Counties: Napa, San Rafael, Santa Rosa, Vallejo
- Coast and Central Bay: Oakland, San Francisco, San Pablo
- Eastern District: Bethel Island, Concord, Fairfield, Livermore, Pittsburg
- South Central Bay: Fremont, Hayward, Redwood City, San Leandro
- Santa Clara Valley: Los Gatos; San Jose, 4th Street; San Jose East; San Martin; Sunnyvale

Closest Monitoring Station: *Pittsburg*

Year	Days Exceeded 1-Hr Nat'l Std	Days Exceeded 1-Hr State Std	Days Exceeded 8-Hr Nat'l Std
2002	0	4	2
2001	0	2	1
2000	0	1	0
Total	0	7	3

j) Potential to Increase Transit Use:

Description: *N/A*

7) PROJECT COST ESTIMATE

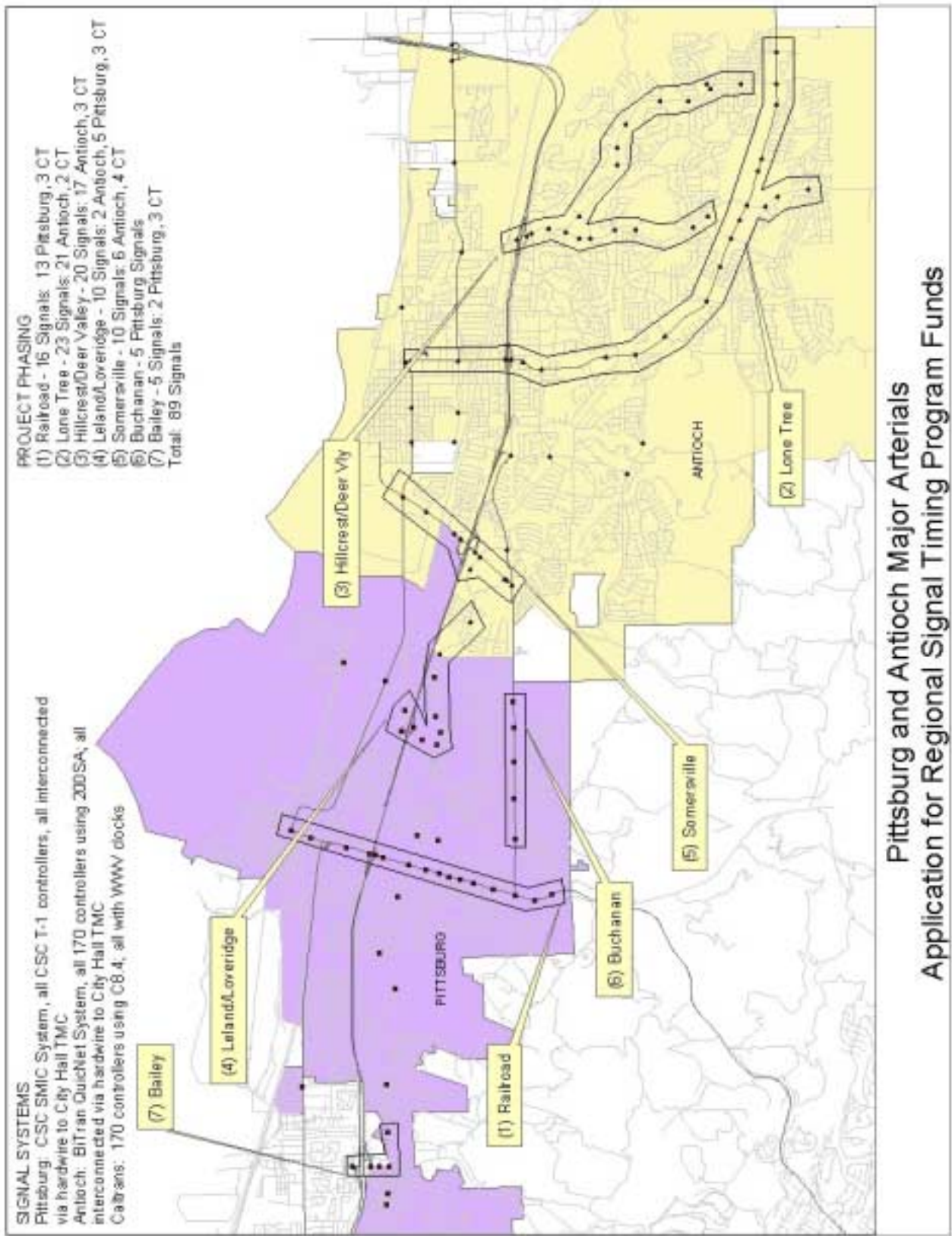
Fill in the following table for the time-of-day signal coordination element of the project (no transit priority). Do not change the unit cost values. (Hint: Double-click on the table to edit.)

Project Phase	No. of Signals per Implementation Scenario		No. of Timing Plans (1, 2, or 3)	Subtotal Cost
	From TMC or Dial-Up	At Controller		
1	13	3	3	\$26,850
2	21	2	3	\$38,250
3	17	3	3	\$33,450
4	7	3	3	\$16,950
5	6	4	3	\$17,100
6	5	0	3	\$8,250
7	2	3	3	\$8,700
8				\$0
Total Cost Estimate				\$149,550

8) DEMONSTRATION OF SUPPORT AND APPLICATION SIGNATURES

Attach letters of support from all participating agencies or have an official from the other participating agencies sign this application along with the project sponsor. By providing letters of support and/or signing the application, the signator affirms that the statements contained in the application package are true and complete to the best of their knowledge.

_____ Signature	_____ Signature	_____ Signature
<i>Joel McDaniel/Pittsburg</i>	<i>Ed Franzen/Antioch</i>	<i>Paul Chiu/Caltrans</i>



Appendix C Office of Traffic Safety Rankings

From www.ots.ca.gov/cgi-bin/rankings.pl

Statewide Ranking by Population for
Total Fatal and Injury Collisions

The screenshot shows the California Office of Traffic Safety (OTS) Rankings website. The browser window is titled "Welcome to California - Office of Traffic Safety - Microsoft Internet Explorer". The address bar shows "http://www.ots.ca.gov/cgi-bin/rankings.pl". The page has a left sidebar with links: "TTA-21 Reauthorization Updates", "OTS Kids Site", "OTS Forms", "Grants & Program Info", "Press Room", "Traffic Talk", "Calendar of Events", "Publications and Reports", "Statistics", "HotLinks", and "Customer Survey". The main content area has a "CITY:" dropdown set to "LOS ANGELES" and a "COUNTY:" dropdown set to "SELECT ONE-". Below these are "SHOW CITY" and "SHOW COUNTY" buttons. A message says "Please Select & Show Rankings above." Below this is a table with columns: Agency, Year, County, Group, Population, and DVMT. The table shows data for LOS ANGELES in 2001, with a population of 3,775,350 and DVMT of 42,842,700. Below this is a table titled "FATAL AND INJURY COLLISION TYPE" with columns: TOTALS, RANKING BY VEHICLE MILES (STATEWIDE, POP. GRP.), and RANKING BY POPULATION (STATEWIDE, POP. GRP.). The table shows data for various collision types, including Total Fatal and Injury, Alcohol Involved, Speed Related, Nighttime (5:00pm - 2:59am), Hit and Run, HBD Driver < 21, HBD Driver 21-34, and Composite. The statewide ranking by population for Total Fatal and Injury is 96.

Agency	Year	County	Group	Population	DVMT
LOS ANGELES	2001	LOS ANGELES CO	A	3,775,350	42,842,700

FATAL AND INJURY COLLISION TYPE	TOTALS	RANKING BY VEHICLE MILES		RANKING BY POPULATION	
		STATEWIDE	POP. GRP.	STATEWIDE	POP. GRP.
Total Fatal and Injury	28,070	104	5/13	96	4/13
Alcohol Involved	2,468	154	8/13	81	4/13
Speed Related	5,968	195	10/13	144	8/13
Nighttime (5:00pm - 2:59am)	4,042	57	4/13	20	2/13
Hit and Run	5,046	17	2/13	10	2/13
HBD Driver < 21	154	226	11/13	214	9/13
HBD Driver 21-34	1,115	120	7/13	66	4/13
Composite		96	7/13	44	4/13

Appendix D Bay Area Pollution Summaries

Days Exceeded
1-Hr National
Standard

Days Exceeded
1-Hr State
Standard

Days Exceeded
8-Hr National
Standard

BAY AREA AIR POLLUTION SUMMARY — 2002																				—See NOTES on back of this page						
MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM ₁₀					PM _{2.5}					
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg	Max 8-Hr	Nat Days	3-Yr Avg	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max Ann	Ann Avg	Nat/Cal Days	Ann Geo Mean	Ann Avg	Max 24-Hr	Nat Days	Cal Days	Max 24-Hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(pphm)						(pphm)			(pphm)			(ppb)			(µg/m ³)					(µg/m ³)					
Napa	12	0	1	0.0	8	0	6.3	4.2	2.4	0	5	1.3	0	-	-	-	22.6	25.4	67	0	4	-	-	-	-	-
San Rafael	8	0	0	0.0	6	0	4.7	4.1	1.9	0	6	1.7	0	-	-	-	19.1	21.4	70	0	2	-	-	-	-	-
Santa Rosa	8	0	0	0.0	6	0	5.2	3.7	2.1	0	5	1.3	0	-	-	-	17.8	19.7	60	0	2	51	0	40.2	10.5	10.5
Vallejo	11	0	1	0.0	7	0	5.9	5.8	3.9	0	5	1.3	0	4	1.3	0	18.7	21.4	80	0	1	72	1	51.3	13.6	12.6
Coast & Central Bay																										
Oakland	5	0	0	0.0	4	0	4.0	4.4	3.3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1.0	0	-	-	-	-	-	-	-	-	-	-
San Francisco	5	0	0	0.0	5	0	4.4	3.5	2.6	0	8	1.9	0	6	1.9	0	21.0	24.7	74	0	2	70	4	48.0	13.1	11.9
San Pablo*	7	0	0	0.0	5	0	4.5	3.7	1.8	0	5	*	0	5	*	0	*	*	67	0	3	-	-	-	-	-
Eastern District																										
Bethel Island	11	0	5	0.3	10	3	7.9	1.7	1.3	0	4	1.0	0	9	2.5	0	20.8	23.8	58	0	3	-	-	-	-	-
Concord	10	0	5	0.7	9	3	7.8	3.5	2.3	0	6	1.5	0	6	0.8	0	17.9	20.9	63	0	3	77	4	44.7	13.3	11.4
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	12	1.8	0	-	-	-	-	-	-	-	-	-	-
Fairfield*	10	0	4	0.0	8	0	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	16	2	10	1.0	11	6	8.2	4.8	2.5	0	8	1.7	0	-	-	-	21.5	24.5	64	0	2	62	0	47.7	13.8	12.3
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1.2	0	-	-	-	-	-	-	-	-	-	-
Pittsburg	11	0	4	0.0	10	2	7.4	6.2	2.5	0	5	1.3	0	14	2.5	0	21.1	23.7	73	0	3	-	-	-	-	-
South Central Bay																										
Fremont	11	0	3	0.0	7	0	6.1	3.7	2.2	0	6	1.9	0	-	-	-	20.0	22.5	52	0	1	48	0	41.6	12.5	11.4
Hayward	9	0	0	0.0	7	0	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Redwood City	9	0	0	0.0	6	0	5.3	5.8	2.8	0	7	1.7	0	-	-	-	19.5	22.0	53	0	1	43	0	41.8	11.5	11.3
San Leandro	10	0	1	0.0	6	0	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Clara Valley																										
Gilroy*	12	0	6	*	9	2	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Los Gatos*	11	0	4	0.0	9	2	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose Central*	*	*	*	*	*	*	*	5.3	4.5	0	8	*	0	-	-	-	*	*	70	0	2	58	0	*	*	*
San Jose East	9	0	0	0.0	7	0	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.9	25.4	70	0	2	54	0	45.9	12.0	11.8
San Martin	12	0	8	0.0	10	5	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sunnyvale*	9	0	0	*	7	0	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Bay Area Days over Standard	2 16						7			0			0			0 6					5					
*See notes of explanation on back of this page																										

2002 Bay Area Pollution Summary

Appendix D Bay Area Pollution Summaries (cont'd)

Days Exceeded
1-Hr National
Standard

Days Exceeded
1-Hr State
Standard

Days Exceeded
8-Hr National
Standard

BAY AREA AIR POLLUTION SUMMARY — 2001																			—See notes of explanation on back of this page				
MONITORING STATIONS	OZONE							CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM10						
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg	Max 8-Hr	Nat Days	3-Yr Avg	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max 24-Hr	Ann Avg	Nat/Cal Days	Ann Geo Mean	Ann Avg	Max 24-Hr	Nat Days*	Cal Days*		
North Counties																							
Napa	10	0	1	0.0	8	0	6.6	5.7	3.0	0	6	1.3	0	-	-	-	21.4	24.0	91	0	2		
San Rafael	9	0	0	0.0	7	0	5.1	5.2	2.4	0	6	1.7	0	-	-	-	18.1	20.4	79	0	2		
Santa Rosa	9	0	0	0.0	6	0	5.6	4.8	2.4	0	6	1.3	0	-	-	-	18.4	21.1	74	0	2		
Vallejo	9	0	0	0.0	7	0	6.2	5.6	4.1	0	6	1.3	0	4	1.0	0	16.5	19.4	86	0	3		
Coast & Central Bay																							
Oakland	7	0	0	0.0	4	0	4.2	5.0	4.0	0	-	-	-	-	-	-	-	-	-	-	-		
San Francisco	8	0	0	0.0	5	0	4.6	4.0	3.3	0	7	1.9	0	7	2.1	0	22.9	26.4	67	0	7		
San Pablo	9	0	0	0.0	8	0	4.8	2.3	1.4	0	6	1.4	0	5	1.3	0	-	-	-	-	-		
Eastern District																							
Bethel Island	13	1	3	0.7	10	2	8.2	2.5	1.5	0	4	1.0	0	7	2.1	0	18.7	22.7	87	0	3		
Concord	13	1	6	1.3	9	1	8.1	4.4	2.7	0	7	1.5	0	4	1.1	0	17.8	20.4	106	0	2		
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	16	1.7	0	-	-	-	-	-		
Fairfield	10	0	3	0.3	8	0	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Livermore	11	0	9	1.3	9	2	8.3	5.8	3.2	0	7	1.7	0	-	-	-	21.1	24.6	109	0	3		
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1.3	0	-	-	-	-	-		
Pittsburg	12	0	2	0.0	9	1	7.3	5.2	2.4	0	6	1.4	0	11	2.7	0	16.6	20.6	98	-	-		
South Central Bay																							
Fremont	11	0	3	0.3	8	0	6.2	5.4	2.7	0	8	1.9	0	-	-	-	20.8	23.4	58	0	3		
Hayward	10	0	2	0.0	9	1	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Redwood City	11	0	1	0.0	7	0	4.9	7.1	3.9	0	7	1.7	0	-	-	-	19.9	22.6	65	0	4		
San Leandro	9	0	0	0.0	6	0	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Santa Clara Valley																							
Gilroy	12	0	3	0.0	10	2	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Los Gatos	12	0	2	0.0	9	1	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
San Jose, 4th Street	11	0	2	0.0	7	0	6.0	7.6	5.1	0	11	2.4	0	-	-	-	25.6	28.9	77	0	4		
San Jose East	9	0	0	0.0	6	0	5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.2	22.8	75	0	4		
San Martin	12	0	7	0.3	9	2	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sunnyvale	8	0	0	-	6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Total Bay Area Days over Standard	1	15			7					0			0			0	*Since PM10 is only sampled every sixth day, actual days over standard may be estimated to be six times the numbers shown.					0	10

2001 Bay Area Pollution Summary

Appendix D Bay Area Pollution Summaries (cont'd)

Days Exceeded
1-Hr National
Standard

Days Exceeded
1-Hr State
Standard

Days Exceeded
8-Hr National
Standard

BAY AREA AIR POLLUTION SUMMARY — 2000																		—See notes of explanation on back of this page				
MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM ₁₀						
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg*	Max 8-Hr	Nat Days	3-Yr Avg**	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max 24-Hr	Ann Avg	Nat/Cal Days	Ann Geo Mean	Ann Avg	Max 24-Hr	Nat Days***	Cal Days***	
North Counties	(pphm)				(pphm)			(ppm)			(pphm)			(ppb)			(µg/m ³)					
Napa	8	0	0	0.3	6	0	6.9	4.7	2.8	0	5	1.2	0	-	-	-	14.7	16.2	45	0	0	
San Rafael	7	0	0	0.0	6	0	5.0	4.2	2.3	0	6	1.6	0	-	-	-	18.2	19.5	40	0	0	
Santa Rosa	8	0	0	0.0	6	0	5.5	4.5	3.1	0	5	1.3	0	-	-	-	15.9	17.5	46	0	0	
Vallejo	8	0	0	0.0	6	0	6.1	6.5	5.1	0	6	1.3	0	5	1.5	0	13.0	15.0	53	0	1	
Coast & Central Bay																						
Oakland	7	0	0	0.0	5	0	4.1	5.4	3.4	0	-	-	-	-	-	-	-	-	-	-	-	
San Francisco	6	0	0	0.0	4	0	4.4	5.5	3.2	0	7	2.0	0	8	2.4	0	21.7	24.0	63	0	2	
San Pablo	8	0	0	0.0	7	0	4.7	2.8	1.9	0	7	1.4	0	7	2.0	0	-	-	-	-	-	
Eastern District																						
Bethel Island	12	0	1	0.3	9	1	8.4	2.3	1.5	0	4	1.0	0	7	1.6	0	17.5	20.0	62	0	1	
Concord	14	1	2	1.7	9	1	8.4	4.5	2.7	0	7	1.6	0	4	1.6	0	16.2	17.8	54	0	1	
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	24	2.5	0	-	-	-	-	-	
Fairfield	10	0	1	0.3	8	0	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Livermore	15	2	7	3.3	11	2	8.7	4.5	2.7	0	7	1.7	0	-	-	-	19.4	21.8	71	0	2	
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1.1	0	-	-	-	-	-	
Pittsburg	11	0	1	0.0	8	0	7.2	4.9	2.7	0	5	1.3	0	7	1.7	0	13.9	16.4	56	0	2	
South Central Bay																						
Fremont	10	0	2	0.3	8	0	6.3	4.6	2.7	0	8	2.0	0	-	-	-	19.4	21.5	58	0	1	
Hayward	11	0	1	0.0	8	0	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mountain View ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Redwood City	8	0	0	0.0	6	0	4.7	9.8	4.4	0	7	1.8	0	-	-	-	19.1	21.2	53	0	1	
San Leandro	10	0	1	0.0	6	0	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Clara Valley																						
Gilroy ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Los Gatos	8	0	0	0.3	7	0	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose, 4th Street	7	0	0	0.3	6	0	6.2	8.4	6.3	0	11	2.5	0	-	-	-	23.8	26.7	76	0	7	
San Jose East	10	0	1	0.3	7	0	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.4	21.5	69	0	2	
San Martin	11	0	4	1.3	10	1	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Bay Area Days over Standard		3	12			4		0			0			0					0	7		
¹ Out of service in 2000 (see Notes on back)	*Average number of days of exceedence (see Notes on back)			**Average of the fourth highest concentration (see Notes on back)												***PM ₁₀ measurements are based on a one in every six days sampling schedule, for a total of approximately 60 samples per year.						

2000 Bay Area Pollution Summary

Appendix E Sample Waiver of Claims and Indemnification

WAIVER OF CLAIMS AND INDEMNIFICATION AGREEMENT
Between METROPOLITAN TRANSPORTATION COMMISSION
And _____

THIS AGREEMENT is made and entered into as of the ____ day of _____, 2004, by and between the Metropolitan Transportation Commission, a regional transportation planning agency established pursuant to California Government Code § 66500 et seq., (herein called "MTC"), and _____ (herein called "CITY").

WITNESSETH

WHEREAS, MTC has entered into a technical services agreement with _____ (herein called "the Consultant"), under which the firm will provide assistance to various Bay Area cities in the retiming of traffic signals in those cities (herein called "the Project"); and

WHEREAS, CITY is participating in the Project by receiving assistance from the Consultant;

WHEREAS, the parties wish to define CITY's obligations to MTC respecting waiver of claims and indemnity;

NOW, THEREFORE, the parties hereto agree as follows:

1.0 WAIVER OF CLAIMS AGAINST MTC

CITY waives all claims by CITY, its directors, supervisors, officers, employees, or agents against MTC, its commissioners, officers, and/or employees for damages, loss, injury and/or liability, direct or indirect, resulting from CITY's participation in the Project and/or the services provided to CITY by the Consultant under contract to MTC. CITY's waiver shall not apply to liability arising from and caused by the adjudicated or admitted negligence or willful misconduct of MTC, its commissioners, officers, and/or employees.

2.0 INDEMNIFICATION AND DEFENSE

CITY agrees to indemnify, hold harmless and defend MTC, its commissioners, officers, and employees from any and all third party claims, demands, lawsuits, liability, loss, damages, injury and/or liability, direct or indirect (including any and all costs and expenses in connection therewith), resulting from or in connection with provision of services to CITY by the Consultant under contract with MTC, to the extent that indemnity for such claims, demands, lawsuits, liability, loss, damages, injury and/or liability is not covered by the Consultant's indemnification of MTC in its contract with MTC. CITY's indemnification obligation shall not apply to liability arising from and caused by the adjudicated or admitted negligence or willful misconduct of MTC, its commissioners, officers, agents, and employees.

IN WITNESS WHEREOF, this agreement has been executed by the parties hereto as of the date first written above.

METROPOLITAN TRANSPORTATION
COMMISSION

CITY OF _____

Steve Heminger, Executive Director

City Manager

Appendix F Consultant Indemnification of MTC and Client Jurisdictions

Consultants are required to indemnify and hold harmless MTC and all client jurisdictions from any and all claims, demands, suits, loss, damages, injury, and/or liability, direct or indirect (including any and all costs and expenses in connection therewith), incurred by reason of any negligent or otherwise wrongful act or omissions of the consultants; and, at their own cost, expense, and risk, to defend any and all claims, actions, suits, or other legal proceedings brought or instituted against MTC and all client jurisdictions, arising out of such negligent or otherwise wrongful act or omission, and to pay and satisfy any resulting judgments.

The indemnification obligation shall not apply to liability arising from and caused by the adjudicated or admitted negligence or willful misconduct of MTC or any client jurisdictions. If the adjudicated or admitted negligence or willful misconduct of MTC or any of the client jurisdictions contributes to a loss, the consultant shall not be obligated to indemnify such indemnitee for the proportionate share of such loss caused by such negligence or willful misconduct.

Appendix G Consultant Insurance Requirements

Consultant must obtain and maintain at their own expense the following types of insurance for the duration of the agreement: (1) Worker's Compensation Insurance, as required by the law, and Employer's Liability Insurance in an amount no less than \$1,000,000; (2) Commercial General Liability Insurance with a combined single limit of not less than \$1,000,000 for injury to any one person and for any one occurrence and \$2,000,000 general aggregate applying separately to this project; (3) Automobile Liability Insurance in an amount no less than \$1,000,000; and (4) Errors and Omissions Insurance in the amount of \$1,000,000. The Commercial General Liability Insurance policy shall contain an endorsement to include MTC, its Commissioners, officers, representatives, agents and employees and all client jurisdictions as additional insureds and to specify that such insurance is primary and that no MTC or client jurisdiction insurance will be called on to contribute to a loss. Certificates of insurance verifying the coverages and the required endorsements and signed by an authorized representative of the insurer must be delivered to MTC prior to issuance of any payment under the Agreement by MTC.